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LAMINATE CERAMIC CIRCUIT BOARD AND PROCESS THEREFOR

Abstract

A circuit board assembly that makes use of a low-temperature co-fired ceramic (LTCC) substrate, and a process for producing the assembly. The substrate contains at least first and second regions formed by a plurality of first ceramic layers and at least one second ceramic layer, respectively, that are superimposed and bonded to each other. Conductor lines are present on at least some of the first ceramic layers so as to be between adjacent pairs of the layers. Electrically-conductive vias electrically interconnect the conductor lines on different first ceramic layers, and a surface-mount IC device is mounted to the substrate. The first ceramic layers are formed of electrically-nonconductive materials, while the one or more second ceramic layers contain thermally-conductive particles dispersed in a matrix of electrically-nonconductive materials, such that the one or more second ceramic layers are more thermally conductive than the first ceramic layers.